



# ZIKA 101

Updated February 2, 2017



**U.S. Department of  
Health and Human Services**  
Centers for Disease  
Control and Prevention

# INTRODUCTION

# What is Zika?

- Zika virus is spread to people primarily through the bite of an infected *Aedes* species mosquito (*Ae. aegypti* and *Ae. albopictus*).
- Many people infected with Zika virus won't have symptoms or will only have mild symptoms.
- Zika virus infection during pregnancy can cause microcephaly and other severe brain defects.



## Where has Zika been found?

- Before 2015, Zika outbreaks occurred in Africa, Southeast Asia, and the Pacific Islands.
- Currently outbreaks are occurring in many countries and territories.

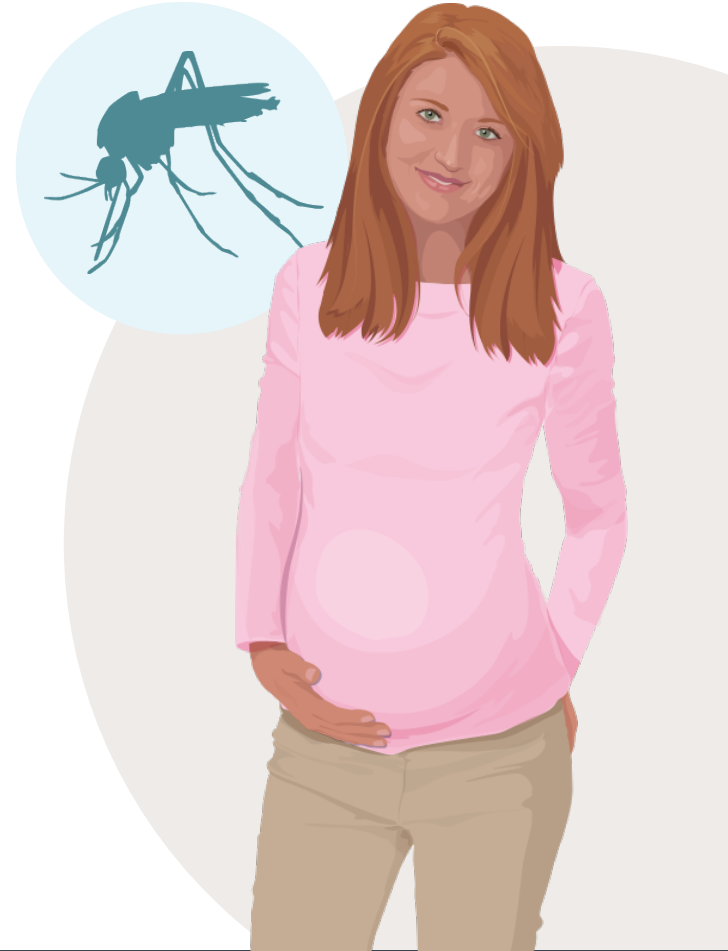


<http://www.cdc.gov/zika/geo/index.html>

# **SPREAD AND SYMPTOMS**

# How is Zika spread?

- Zika can be spread through
  - » Mosquito bites
  - » From a pregnant woman to her fetus
  - » Sex with an infected person
  - » Laboratory exposure
- Zika may be spread through blood transfusion.
- No reports of infants getting Zika through breastfeeding.



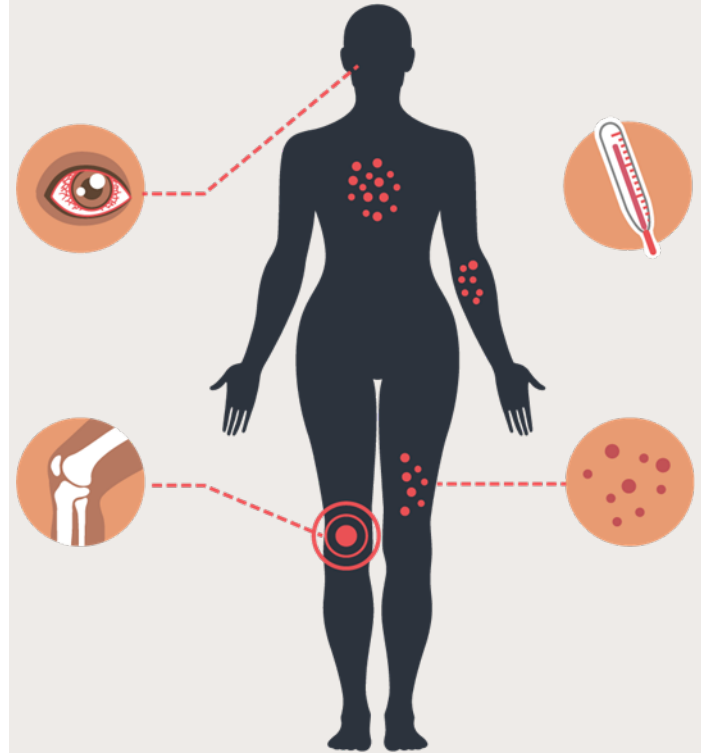
# How does Zika affect people?

- Many people with Zika will not have symptoms or will only have mild symptoms.
- Symptoms last several days to a week.
- People usually don't get sick enough to go to the hospital.
- People very rarely die of Zika.



# What are the symptoms?

- For people with symptoms, the most common symptoms of Zika are
  - » Fever
  - » Rash
  - » Joint pain
  - » Conjunctivitis (red eyes)
- Other symptoms include
  - » Muscle pain
  - » Headache





# **ZIKA AND PREGNANCY**

## How can Zika affect pregnancies?

- Zika virus can pass from a pregnant woman to her fetus during pregnancy or around the time of birth.
- It is not known how often this happens.



## How can Zika affect pregnancies?

- Infection during pregnancy can cause microcephaly and other severe brain defects.
- Linked to other problems, such as miscarriage, stillbirth, and birth defects
- No evidence that past infection will affect future pregnancies once the virus has cleared the body



# How can Zika affect pregnancies?

- Congenital Zika syndrome
  - » Distinct pattern of birth defects in fetuses and infants of women infected during pregnancy
  - » Associated with 5 types of birth defects not seen or rarely seen with other infections during pregnancy
    - Severe microcephaly (small head size) resulting in a partially collapsed skull
    - Decreased brain tissue with brain damage
    - Damage to the back of the eye with a specific pattern of scarring and increased pigment
    - Limited range of joint motion, such as clubfoot
    - Too much muscle tone restricting body movement soon after birth



## Assessing pregnant women for possible Zika exposure

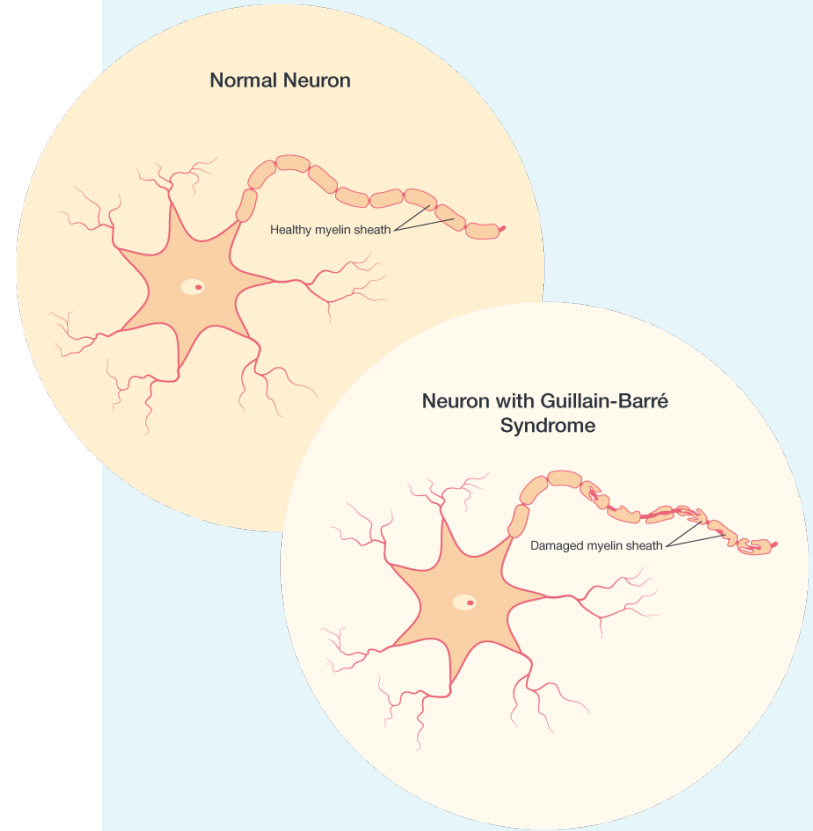
- At each prenatal care visit, all pregnant women should be asked if they
  - » Traveled to or live in an area with Zika.
  - » Had sex without a condom with a partner who lives in or traveled to an area with Zika.



# **GUILLAIN- BARRÉ SYNDROME**

# Does Zika cause Guillain-Barré syndrome (GBS)?

- GBS is an uncommon sickness of the nervous system in which a person's own immune system damages the nerve cells, causing muscle weakness, and sometimes, paralysis.
- GBS is strongly associated with Zika but only a small proportion of people with recent Zika infection get GBS.
- CDC is continuing to investigate the link between GBS and Zika to learn more.

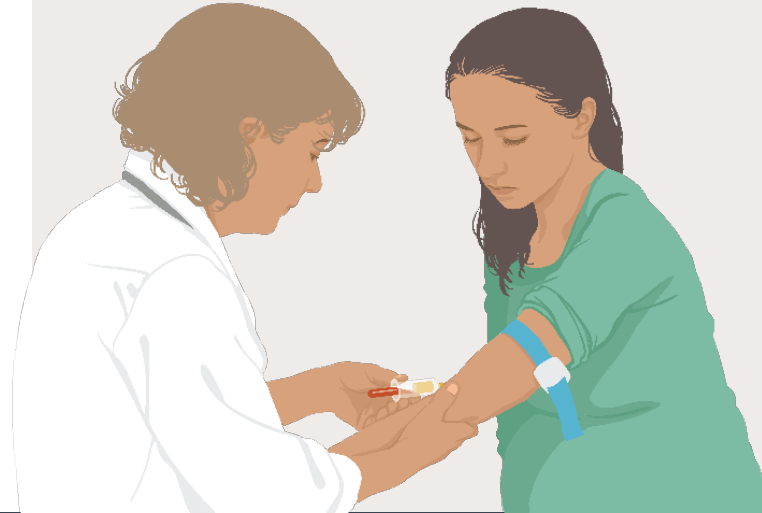


# TESTING



## How is Zika diagnosed?

- A doctor or other healthcare provider may order tests to look for similar types of infections.
- A blood or urine test can confirm a Zika infection if specimens are collected early in a person's infection.



# Who should be tested for Zika?

- Anyone who has or recently had Zika symptoms
  - » And lives in or recently traveled to an area with Zika, or
  - » Had unprotected sex with a partner who lived in or traveled to an area with Zika
- All pregnant women who
  - » Live in or recently traveled to an area with Zika, or
  - » Had sex without a condom with a partner who lives in or recently traveled to an area with Zika, whether or not they have Zika symptoms.



# Testing babies for Zika

- CDC recommends laboratory testing for
- All infants born to mothers with laboratory evidence of Zika virus infection during pregnancy.
  - Infants who have abnormal clinical or neuroimaging findings suggestive of congenital Zika syndrome and a mother with a possible exposure to Zika virus, regardless of maternal Zika virus testing results.



# **WHAT TO DO IF YOU GET INFECTED**

# How is Zika treated?

- There is no specific medicine or vaccine for Zika virus infection.
- Treat the symptoms
  - » Rest
  - » Drink fluids to prevent dehydration
  - » Do not take aspirin or other non-steroidal anti-inflammatory drugs (NSAIDs)
  - » Take acetaminophen (Tylenol®) to reduce fever and pain



# What to do if you have Zika

- Protect yourself from mosquito bites. During the first week of illness, Zika virus can be found in blood.
- The virus can be passed from an infected person to a mosquito through bites.
- An infected mosquito can spread the virus to other people.



# **SURVEILLANCE**

# Reporting of Zika in the United States

- Healthcare providers should report cases to their local, state, or territorial health department.
- State and territorial health departments are encouraged to report confirmed cases to CDC through ArboNET, the national surveillance system for arboviral diseases.
- Pregnant women with any lab evidence of possible Zika virus infection should be reported to the US Zika Pregnancy Registry.



For the most recent case counts, visit <https://www.cdc.gov/zika/geo/united-states.html>.



# Zika Pregnancy Registries

US Zika Pregnancy  
Registry



Zika Active Pregnancy  
Surveillance System  
(Puerto Rico)



Proyecto Vigilancia de  
Embarazadas con Zika  
(Colombia)



# US Zika Pregnancy Registry

- CDC established the US Zika Pregnancy Registry to collect information and learn more about pregnant women in the US with Zika and their infants.
- Data will be used to
  - » Update recommendations for clinical care
  - » Plan for services for pregnant women and families affected by Zika
  - » Improve prevention of Zika infection during pregnancy
- Zika Active Pregnancy Surveillance System is used in Puerto Rico.



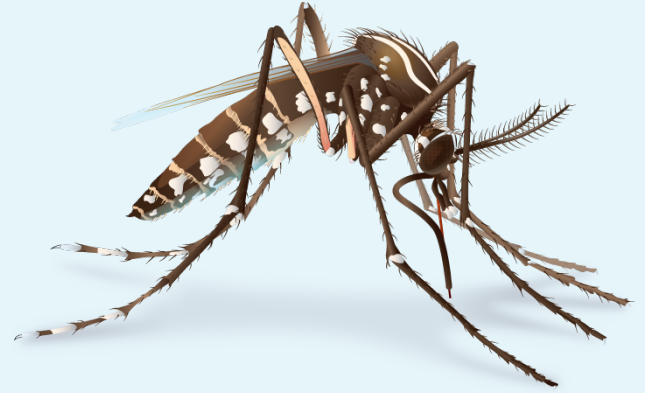
<https://www.cdc.gov/zika/hc-providers/registry.html>

<https://www.cdc.gov/zika/public-health-partners/zapss.html>

# **PREVENTION**

**Protect from mosquito bites**

Zika is primarily spread through the bite of an infected *Aedes aegypti* or *Aedes albopictus* mosquito. Take steps to protect yourself and others.



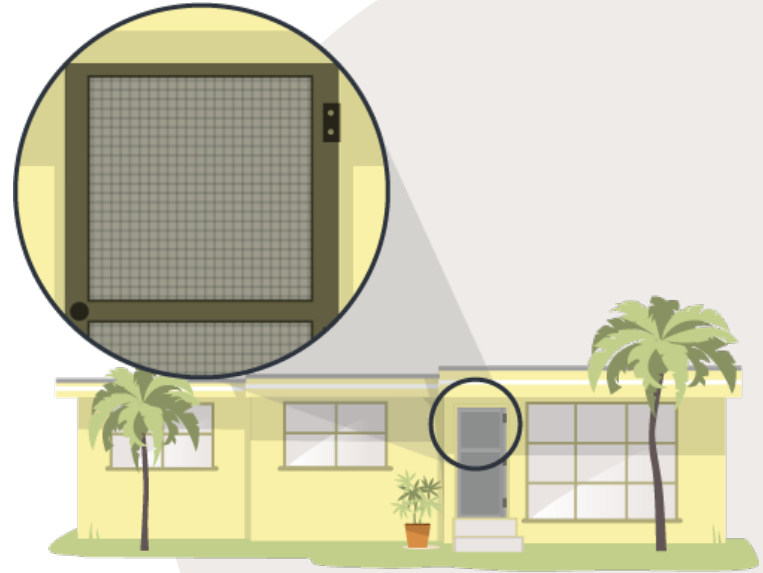
# Control mosquitoes outside

- Here's what you can do to help control mosquitoes outside your home
  - » Once a week, empty and scrub, turn over, cover, or throw out items that hold water.
  - » Tightly cover water storage containers.
  - » Use larvicides to kill larvae in containers of water that cannot be emptied and will not be used for drinking.
  - » If you have a septic tank, repair cracks or gaps.



# Control mosquitoes inside

- Here's what you can do to help control mosquitoes inside your home:
  - » Use window and door screens.
  - » Use air conditioning when possible.
  - » Once a week, empty, scrub, turn over, or throw out items that hold water.
  - » If you have mosquitoes inside your home, use an indoor insect fogger or indoor insect spray.
    - When using insecticides, always follow label directions.



# Wear insect repellent

- Use Environmental Protection Agency (EPA)-registered insect repellents.
  - » Use a repellent with DEET, picaridin, IR3535, or oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone.
- Always follow the product label instructions.
- Do not spray repellent on the skin under clothing.
- If also using sunscreen, apply sunscreen before applying insect repellent.



# Create a barrier between you and mosquitoes

- Cover up exposed skin!
  - » Wear long-sleeved shirts and long pants
- Treat clothing and gear
  - » Use permethrin\* to treat clothing and gear or buy pre-treated items.
  - » See product information to learn how long the protection will last.
  - » Do not use permethrin products directly on skin.

\* Permethrin is not effective in Puerto Rico.





# Protect your family

- For babies and children
  - » Dress your child in clothing that covers arms and legs.
  - » For children older than 2 months, use insect repellent on exposed skin.
  - » Cover crib, stroller, and baby carrier with mosquito netting.



# Protect your family

- Applying insect repellent for babies and children
  - » Do not apply repellent onto hands, eyes, mouth, and cut or irritated skin.
  - » Adults: Spray onto your hands and then apply to a child's face.
  - » Do not use insect repellent on babies younger than 2 months old.
  - » Do not use products containing oil of lemon eucalyptus or para-menthane-diol on children younger than 3 years old.



# **PREVENTION**

**Preventing sexual transmission**

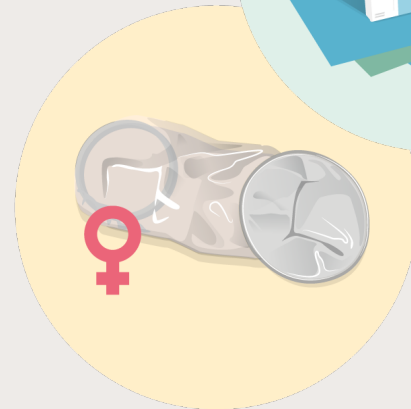
# About sexual transmission

- Zika can be passed through sex from a person who has Zika to his or her sex partners.
  - » Sex includes vaginal, anal, and oral sex and the sharing of sex toys.
  - » Zika can be passed through sex before symptoms start, during, and after symptoms end.
  - » It can be passed even if the infected person does not have symptoms at the time or never develops symptoms.
- Zika virus can stay in semen longer than in vaginal fluids, urine, and blood.



# Protect your partner

- Not having sex eliminates the risk of getting Zika from sex.
- Condoms can reduce the chance of getting Zika from sex.
  - » Includes male and female condoms.
  - » Condoms should be used from start to finish, every time during vaginal, anal, and oral sex and the sharing of sex toys.



# Protect your partner

- People with a partner who traveled to an area with Zika can use condoms or not have sex.
  - » If the traveler is female: For at least 8 weeks after return, or after start of symptoms or diagnosis
  - » If the traveler is male: For at least 6 months after return, or after start of symptoms or diagnosis
- People living in an area with Zika can use condoms or not have sex for as long as Zika is in the area.



## Protect your partner: During pregnancy

- Pregnant couples in which one or both partners live in or traveled to an area with Zika should
  - » Use condoms every time you have sex or do not have sex during the pregnancy.
  - » Do not share sex toys during the pregnancy.



## Protect your partner: If you're thinking of having a baby

**Possible exposure via recent travel or sex without a condom with a partner infected with Zika**

Women

Wait at least 8 weeks after symptoms start or last possible exposure before trying to get pregnant.

Men

Wait at least 6 months after symptoms start or last possible exposure before trying to conceive with your partner.





# Protect your partner: If you're thinking of having a baby

People  
living in or frequently traveling to areas with Zika

	Women	Men
Positive Zika test	Wait at least 8 weeks after symptoms start before trying to get pregnant.	Wait at least 6 months after symptoms start before trying to conceive with your partner.
No testing performed or negative test	Talk with doctor or healthcare provider	Talk with doctor or healthcare provider



# **PREVENTION**

**Traveling**

# Travel guidance for pregnant women

- If you are pregnant, do not travel to areas with Zika.
- Pregnant women should talk with their healthcare provider and consider postponing nonessential travel to countries in CDC's special travel considerations for Southeast Asia.
- If you must travel, talk to your doctor or other healthcare provider before your trip.



# Protect yourself while traveling

- If you travel to an area with Zika:
  - » Strictly follow steps to prevent mosquito bites.
  - » Use condoms or do not have sex during the trip.



# Protect yourself while traveling

- Stay in places with air conditioning and with window and door screens.
- Use a bed net if air conditioned or screened rooms are not available or if sleeping outdoors.



# Protect yourself and others after travel

- Even if you don't feel sick, take steps to prevent mosquito bites for 3 weeks after travel so you don't spread Zika to uninfected mosquitoes.



# Do your homework before traveling

See the latest travel notices at:

[wwwnc.cdc.gov/travel/page/zika-travel-information](http://wwwnc.cdc.gov/travel/page/zika-travel-information)



# WHAT CDC IS DOING



# What is CDC doing?

- Activated Emergency Operations Center (EOC) to level 1
- Providing on-the-ground support in areas with Zika
- Educating healthcare providers and the public about Zika
- Providing travel guidance
- Developing lab tests and providing labs with diagnostic tests
- Conducting a study to evaluate the persistence of Zika virus in blood, semen, vaginal fluids, and urine



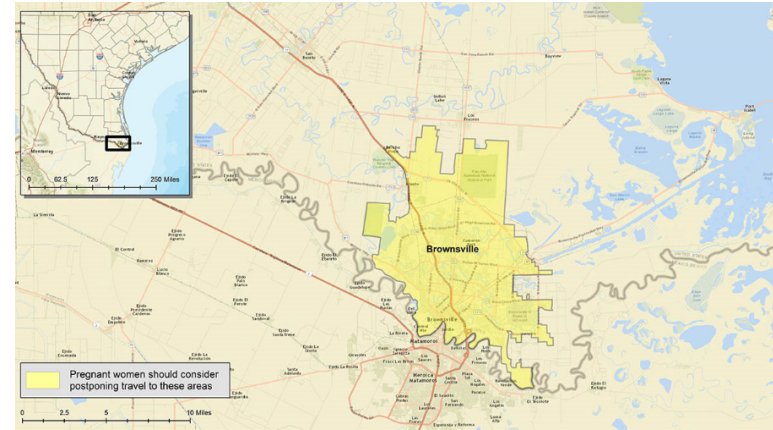
# CDC is working with partners to



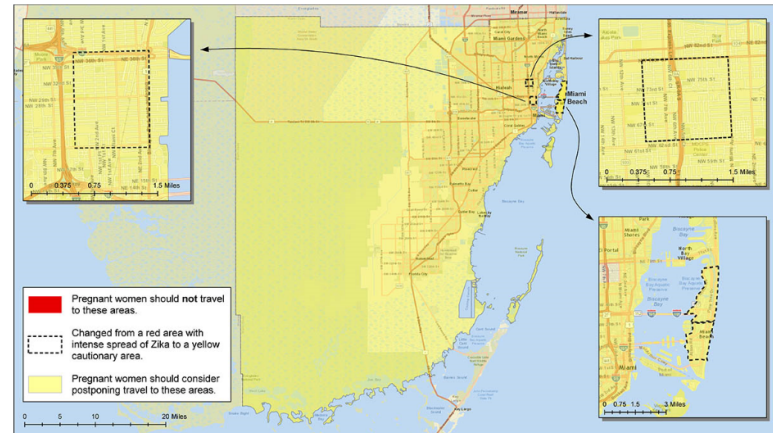
- Monitor and report cases.
- Conduct studies to learn more about the potential link between Zika and Guillain-Barré syndrome.
- Create action plans for state and local health officials to improve Zika preparedness.
- Publish and disseminate guidelines to inform testing and treatment of people with suspected or confirmed Zika.
- Working with partners to better understand the risk and spectrum of birth defects from Zika infection during pregnancy and risks for sexual transmission.

# Zika in the United States

- Local mosquito-borne spread of Zika virus was reported in Miami-Dade County, Florida, and Brownsville, Texas.
- Pregnant women should consider postponing travel to these areas.



Brownsville, Texas



Miami-Dade County, Florida

# CDC'S Response to Zika



For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



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